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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,714	11/01/2001	Richard Brosh	LKMP:104_US_	7203

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EXAMINER	
SHINGLETON, MICHAEL B	
ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09-998,714	Brosh et al.
Examiner	**Group Art Unit**
SHINGLETON	2817

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-3 are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

Drawings

The drawings are objected to because diode D2 must be shown as a Zener diode in the drawings as the specification describes this element as only being a Zener diode (See page 3 of the specification.). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-
(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Chrappan et al. 6,150,853 (Chrappan) and Birdsall et al. 5,378,938 (Birdsall).

With respect to claim 3 the Figures of Chrappan et al. discloses a class AB transconductance push-pull amplifier. (Note that Birdsall clearly describes such a class AB push-pull amplifier as a transconductance amplifier.) The push-pull transconductance amplifier of Chrappan includes a first N-channel enhancement MOSFET transistor M2, M4 that sources, i.e. provides, current to the load, a second N-channel enhancement MOSFET transistor M3 that sinks, i.e. pulls, current "to" the load, an operational amplifier OP1 that transmits and amplifies an input signal IN+, IN- and provides an output applied to each of the N-channel MOSFETs mentioned above in a direct or indirect manner that is clearly illustrated by the Figures, and a means for reducing the current to the first N-channel MOSFET when the power amplifier sinks current from the load through the second N-channel MOSFET i.e. push-pull operation (Also see columns 5, 6 and 7 of Chrappan.). Note that "for amplifying a signal to a capacitive load" is merely a statement of intended use that appears in the preamble of the claim(s) and accordingly cannot impart Patentability to claims drawn to structure. The structure subject matter claimed that applicant would be granted a right to exclude someone from making, if the present claim were patented, is the

amplifier and not the combination of an amplifier and a capacitive load. Furthermore, the device of Chrappan is clearly capable of powering many types of conventional loads including capacitive loads. Note that Chrappan shows the load as a generic conventional load and a capacitance load is a conventional load.

With respect to claims 1 and 2 the Figures of Chrappan et al. discloses a class AB transconductance push-pull amplifier. (Note that Birdsall clearly describes such a class AB push-pull amplifier as a transconductance amplifier.) The push-pull transconductance amplifier of Chrappan includes a first N-channel enhancement MOSFET transistor M2, M4 that sources, i.e. provides, current to the load, a second N-channel enhancement MOSFET transistor M3 that sinks, i.e. pulls, current "to" the load, an operational amplifier OP1 that transmits and amplifies an input signal IN+, IN- and provides an output applied to each of the N-channel MOSFETs mentioned above in a direct or indirect manner that is clearly illustrated by the Figures, and a means for reducing the current to the first N-channel MOSFET when the power amplifier sinks current from the load through the second N-channel MOSFET i.e. push-pull operation (Also see columns 5, 6 and 7 of Chrappan.). Note that "for amplifying a signal to a capacitive load" is merely a statement of intended use that appears in the preamble of the claim(s) and accordingly cannot impart Patentability to claims drawn to structure. The structure subject matter claimed that applicant would be granted a right to exclude someone from making, if the present claim were patented, is the amplifier and not the combination of an amplifier and a capacitive load. Furthermore, the device of Chrappan is capable of powering many types of conventional loads including capacitive loads. Note that Chrappan shows the load as a generic conventional load and a capacitance load is a conventional load. As it relates to the "means for biasing said first N-channel enhancement MOSFET transistor such that its gate to source voltage is always at or above its threshold when the load draws near zero current so that very little additional gate charge is required to turn it on more fully". Class AB operation by definition has a bias means that bias the amplification transistors at or above its threshold. Note page 671 of Millman. Thus, Chrappan clearly provides for the above claim language.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elwan discloses a class AB transconductance amplifier. Soneda discloses a push-pull amplifier arrangement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is 703-308-4903. The examiner can normally be reached on Monday-Thursday from 8:00 to 4:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (703) 308-4909. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MBS
October 31, 2002